



# 2 EXISTING INFRASTRUCTURE

## BUILDINGS AND STRUCTURES INVENTORY

The following provides a general description of the infrastructure, services, utilities and roadway network within Chimney Rock State Park. Figures 2.1 and 2.2 show inventoried existing park facilities.

Information contained in this inventory was developed from an on-site assessment of park facilities in May 2009. The assessment included a limited visual inspection of buildings and structures within the park. Additional resources utilized for this inventory include, but are not limited to, the N.C. Department of Administration “Assessment of Chimney Rock Park Facilities” (from the Facilities Conditions Assessment Program) dated March 26, 2007; and the Phase I Environmental Site Assessment of the Chimney Rock Park, prepared for the N.C. Department of Administration dated Feb. 26, 2007.



### OLD ROCK CAFÉ (ca. 1970s, 2,346 SF)

Located along U.S. Route 64/74A to the west of the main park entry. Two story structure with block masonry construction. Painted vertical siding on sides and rear of the building and stone veneer along the front. Asphalt shingle roofing. Sloped canopy along the front sidewalk with painted plywood ceiling and fascia. Timber deck with canvas canopy provides outside dining overlooking the Rocky Broad River.



### PARK ENTRANCE (ca. 1920s)

Two stone masonry towers flanking the bridge access across the Rocky Broad River. The west tower was utilized at one time as a ticket sales office and includes a second floor area. There is a restroom adjacent to the main entry to the east. The building is timber frame construction with stained wood siding and shingle roofing.



### ENTRY BRIDGE (est. dates vary)

Spans the Rocky Broad River at park entrance. 218 feet long and 21 feet, three inches wide. Timber decking system with a two-inch plank wearing surface and 3¾-inch timber deck supported on steel beams with concrete substructure. Timber railing completes the bridge superstructure. Bridge improvements were made in early 2011.

FIGURE 2.1: CHIMNEY ROCK EXISTING PARK FACILITIES

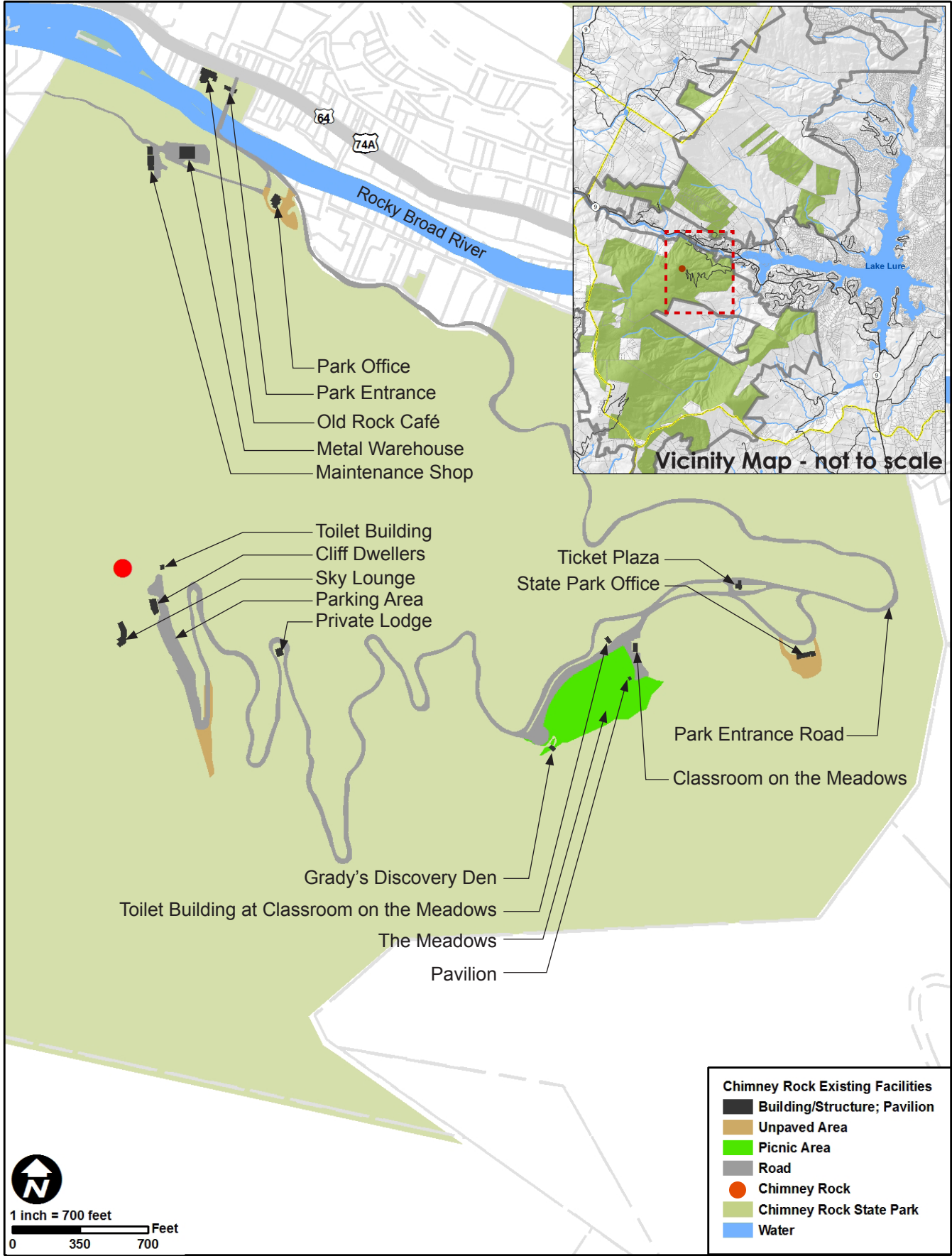




FIGURE 2.2: RUMBLING BALD EXISTING PARK FACILITIES





#### **METAL WAREHOUSE** (ca. 2005, 3,618 SF)

Pole barn structure consisting of heavy timber roof trusses supported on laminated timber posts that are embedded in the ground. Corrugated metal roofing and siding at exterior envelope. Concrete slab on grade. There is a truck-height covered dock at one end of the building with roll-up dock door.



#### **MAINTENANCE SHOP** (est. dates vary, 2,450 SF)

Includes office building with attached sheds to the south. Office is a masonry block structure with a hipped roof and two service bays with a small office area on crawl space at the north end of the building. Both shed additions include metal roofing. Center-shed portion is timber frame hipped construction. Southern shed addition is a mono-sloped timber frame structure with metal roofing.



#### **PARK OFFICE** (ca.1920s, 1,773 SF)

Converted house located just south of the Rocky Broad River along the entry drive. Timber frame construction with a brick veneer foundation on concrete footings. Exterior is painted cedar lap siding. Asphalt shingle roofing.



#### **STATE PARK OFFICE AND ATTACHED MAINTENANCE SHED** (ca. 2003, 2,612 SF)

The maintenance shop with attached shed contains 2,612 SF of space. Timber frame construction with painted cedar siding on block masonry foundation. Office area has a concrete slab on grade and the shed area is gravel. The office portion of the building contains a mezzanine.



#### **TICKET PLAZA** (ca. 1996, 529 SF)

Contains 529 SF of heated area with an attached canopy area of 457 SF. Includes small ticket office with visitor lobby, two ticket windows within building, and restroom for staff. The canopy area includes two drive lanes with separate enclosed ticket booth between lanes.





### CLASSROOM ON THE MEADOWS (ca. 1992, 1,180 SF)

Includes a display room with storage areas. There has been an addition at the rear (east) side of the building that is supported on masonry block foundation. Asphalt shingle roofing.



### TOILET BUILDING AT CLASSROOM ON THE MEADOWS (ca. 1981, 491 SF)

Block masonry construction with timber frame roof structure and asphalt shingle roofing. Exterior is stone veneer with painted cedar siding at the gable ends and painted plywood soffits at overhangs. Interior finish is a mural painted on stucco and drywall painted ceiling.



### PAVILION (ca. 1982, 1,800 SF)

Open sided structure located south of the Classroom on the Meadows. Glu-lam structural frame with timber decking and support post. The floor is slab on grade with asphalt shingle roofing and aluminum gutters along the sides.



### GRADY'S DISCOVERY DEN (ca. 1998, 366 SF)

Modular structure with an additional 384 SF of elevated decking along the east and north sides of the building. Supported on masonry block foundation and includes tie-down straps for horizontal wind load resistance. The building exterior is clad with stained split log siding and the interior is also sealed wood. Standing seam metal roofing.



### PRIVATE LODGE (ca. 1916, 1,833 SF)

Timber frame construction on crawl space with masonry foundation. Building exterior consists of painted wood lapboard siding and roofing is asphalt shingles. Windows are insulated glass in aluminum frames and the main entry is a sliding glass door. Electric service is located in a shed attachment on the east side of the building.



#### **WELL HOUSE** (ca. 1980, 300 SF)

Block masonry construction with timber truss roof structure and asphalt shingle roofing. The exterior is un-painted masonry with plywood sheathing at the gable ends of the building. Entry is via a hollow metal door and the floor is slab on grade.



#### **RETAINING WALL AT CLIFF DWELLERS PARKING LOT** (est. dates vary)

Extends along the length of the parking lot at Cliff Dwellers. Mortared stone, varies in height along the reach of the wall. Wall is capped with a sidewalk, and chain link fencing extends most of the way to Cliff Dwellers.



#### **CLIFF DWELLERS GIFT SHOP** (ca. 2003, 2,652 SF)

Building is two stories in height with asphalt shingle roofing and painted cement board siding. Front of the building has storefront glass windows with insulated plates and anodized aluminum frames.



#### **TOILET BUILDING AT CLIFF DWELLERS** (ca. 2003, 429 SF)

Block masonry construction with timber frame roof structure and asphalt shingle roofing. Exterior is stone veneer with painted cedar siding at the gable ends and painted plywood soffits at overhangs.



#### **TUNNEL, ELEVATOR AND SHAFT** (ca. 1940's, 2,200 SF)

The tunnel and elevator shaft are cut from solid rock with the tunnel extending 258 feet horizontally to a vertical shaft housing the elevator. The tunnel extends from the Cliff Dwellers parking lot into the mountain side to the base of the elevator shaft. Elevator car provides access from the public parking area to the Sky Lounge, a vertical movement of 198 feet. The elevator shaft includes a metal stairway for emergency access. Improvements scheduled to begin in 2011.





### SKY LOUNGE (ca. 1987, 3,794 SF)

Situated 26 stories above Cliff Dwellers. Access is either via elevator or trail network. Construction is heavy timber frame and natural lighting has been provided to the building via second story windows along the rear wall. Siding is painted wood. Asphalt shingle roofing. The front of the building overhangs the mortared stone foundation with a floor structure of concrete slab. Improvements scheduled to begin in 2011.



### PARK BOARDWALKS AND STAIR STRUCTURES

(est. dates vary)

There are numerous treated timber boardwalks and stair structures constructed of wood and metal throughout the park.

## EXISTING TRAILS INVENTORY

Public trails at Chimney Rock State Park are located primarily near Chimney Rock. Trail surfacing varies from natural tread to granite fines and boardwalk. Many trails are looped and incorporate educational signage elements. Trail widths range from 18 inches to 12 feet. Figure 2.3 shows existing trails at Chimney Rock State Park. Existing trails at Chimney Rock State Park include:



### GREAT WOODLAND ADVENTURE TRAIL

(0.6 mile loop, from Grady's Discovery Den)

Trail is three to four feet wide, surfacing materials include bare earth, granite fines, treated timber boardwalk, and treated timber bridges. Educational signage, art and sculpture are located strategically along the trail. Trail entrance is located behind Grady's Discovery Den. Approximately 20 to 30-minute non-strenuous hike.



### FOUR SEASONS TRAIL (0.6 mile, from the Meadows to Hickory Nut Falls Trail)

Natural tread with timber and rock steps, treated timber boardwalk and stair structures. Trail is three to four feet wide. Approximately 30 to 45-minute strenuous hike with 400-foot gain in elevation.



**HICKORY NUT FALLS TRAIL** (0.75 mile from the Park Entrance Road to base of Hickory Nut Falls)

Trail varies in width from 10 to 12 feet with several uphill sections. Surfacing ranges from granite fines to natural tread and exposed rock. Treated timber boardwalk features, a stair structure and timber retaining walls are in several locations. Approximately 30-minute moderate hike.



**OUTCROPPINGS TRAIL** (0.25 miles, from the Cliff Dwellers Parking Lot to top of Chimney Rock)

Stair structures and treated timber boardwalk. Trail width varies from four to eight feet. Viewing platforms are treated timber. The Outcroppings trail provides access to Vista Rock, the Grotto, the Subway, Pulpit Rock, and Moonshiner's Cave. Approximately 20 to 30-minute strenuous hike.



**PULPIT ROCK, SUBWAY AND GROTTO TRAIL** (0.10 mile loop from Outcroppings Trail)

Native rock, timber boardwalk. Trail is a loop off of the Outcroppings Trail, links together Pulpit Rock, Subway and Grotto. The trail has been closed during the timeframe of this master plan due to substandard tread conditions.

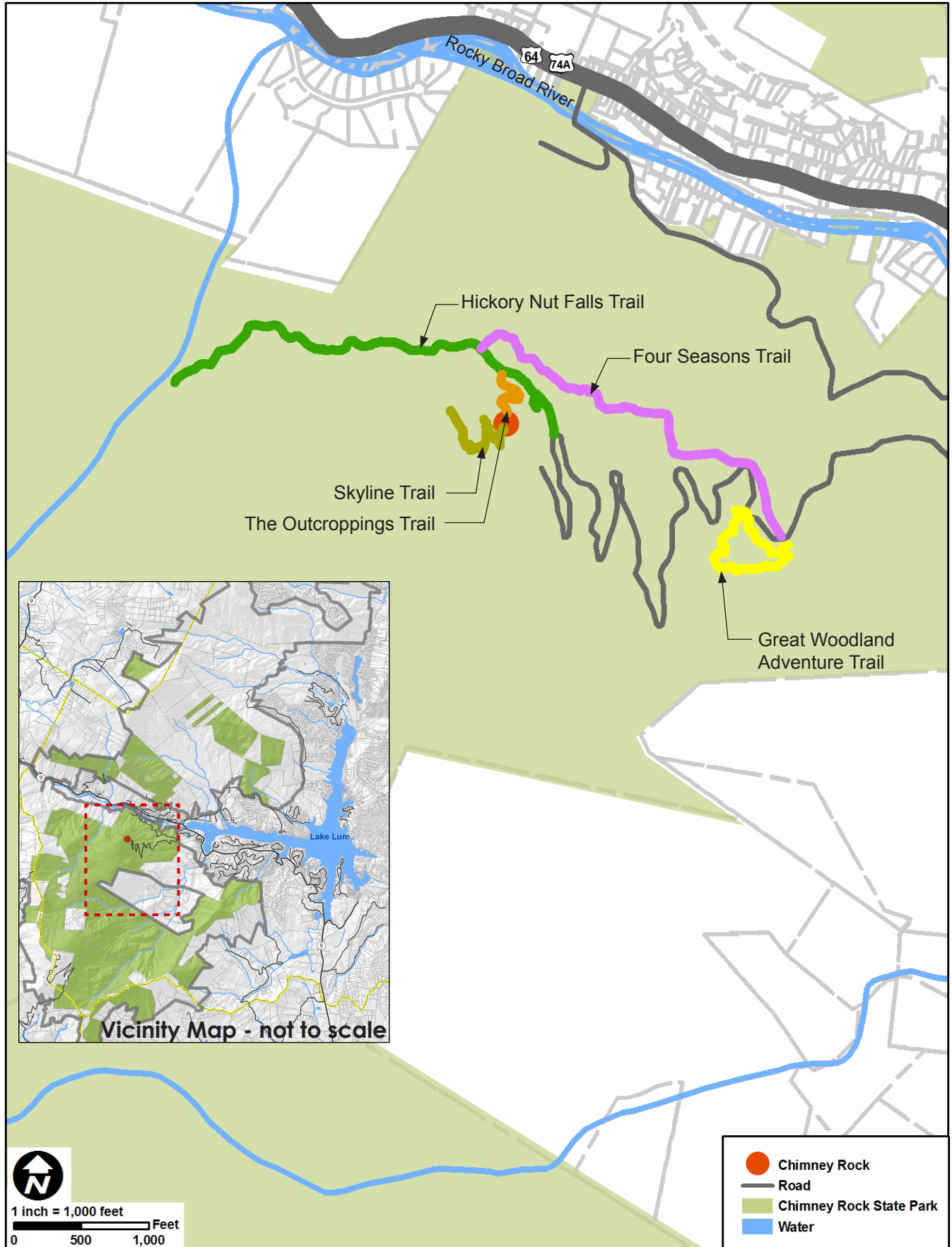


**SKYLINE TRAIL** (0.35 mile from top of Chimney Rock to Exclamation Point)

Masonry, timber edging, timber boardwalk, natural tread, and gravel surfacing. Trail connects to the Opera Box, Devil's Head, and Exclamation Point. Approximately 20 to 30-minute moderate to strenuous hike.



FIGURE 2.3: STUDY AREA EXISTING TRAILS





## ROADS AND UTILITIES INVENTORY

### EXISTING ROADS

The park is served by a single, paved, three-mile-long entrance road off of U.S. Route 64/74A with a bridge across the Rocky Broad River. Traffic on the entrance road is two-way with the exception of a short section at the ticket office. Roadway width varies from 16 to 20 feet with varying shoulder width. The roadway ascends from the entrance to Cliff Dwellers on moderate to steep grades, utilizing a number of switchbacks.



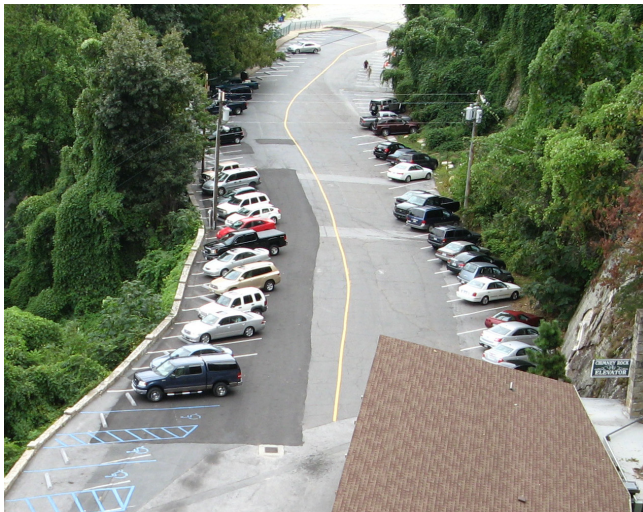
*Park entrance road*



*Pedestrian crosswalk along entrance road*



*Overflow parking at The Meadows*



*Parking at Cliff Dwellers*

### EXISTING PARKING AREAS

Main public parking areas are located at Cliff Dwellers and the Meadows. A large gravel area at the Meadows can support up to 200 cars. Parking at Cliff Dwellers includes a paved parking area with 168 marked standard automobile spaces and four ADA accessible spaces. An additional gravel and grass parking area adjacent to the paved area serves as overflow and bus/RV parking.

Parking at the ticket plaza is accommodated by a small paved area with three marked standard spaces, one ADA accessible space, and RV parking adjacent to the entrance road. Parking for other facilities is provided by small gravel or grassed areas adjacent to these facilities.





*Public parking at the Rumbling Bald*

### RUMBLING BALD CLIMBING ACCESS EXISTING PARKING AREAS

Public parking for the Rumbling Bald Climbing Access area is located off Boys Camp Road in the northeastern portion of the study area. A paved roadway extends from Boys Camp Road to a gravel parking area that can support up to 33 vehicles. The parking area is gated and is open daily from 8:00 a.m. until sunset.

### EXISTING SANITARY SEWER SYSTEMS

The Town of Lake Lure provides sanitary service to the Old Rock Café. All other sanitary service for the park facilities is provided by septic/drain field systems.

Sanitary service for Cliff Dwellers, the toilet building at Cliff Dwellers, and the Sky Lounge is provided by a single system consisting of two 1,500-gallon underground septic tanks beneath the paved parking area and a drain field of unknown dimensions located beneath the current gravel portion of the parking area. Sanitary waste from Cliff Dwellers gravity-flows to the septic tanks by underground PVC pipe. Sanitary waste from the Sky Lounge gravity flows to the septic tanks in an above-ground PVC pipe. Sanitary waste from the toilet building at Cliff Dwellers is temporarily stored in a holding tank behind the toilet building and pumped by way of a grinder pump to the septic tanks detailed above.

Sanitary service for the toilet building at Classroom on the Meadows, Ticket Plaza, State Park Office, Park Office, and the Metal Warehouse and Maintenance Shop are provided by three different septic tank/drain field systems adjacent to these facilities.

### EXISTING WATER SYSTEMS

Historically, the park provided water to the Town of Lake Lure and the Chimney Rock Village as well as the park facilities from surface springs. Supply was provided by way of surface piping which is still quite evident throughout the park property. The use of surface springs and service to communities outside the park was discontinued within the last two decades. Water supply for the park is currently provided by a number of wells located throughout the park property primarily along the entrance road.

The Park Office is served by a well of unknown depth and capacity located adjacent to the building (dug in the early 1980s).

The Metal Warehouse and Maintenance Shop are served by a well of unknown specifications located between the old gatehouse and the Rocky Broad River. Service from this well is provided to the warehouse and maintenance buildings by a ¾-inch polyethylene pipe run under the bridge deck across the river.

The Old Rock Café is served by Chimney Rock Village water service. This is the only facility within the park that is not served by a well.



*Overhead electrical and telecommunications service*

The State Park Office is served by a well of unknown specifications located within the adjacent utility shed.

The Grady's Discovery Den is served by a six inch, 1,200-foot-deep well with a capacity of six gallons per minute (gpm). This well is also connected to the water system for the upper park area described below but does not contribute to the water supply for this system.

The remainder of the park facilities (Sky Lounge, Cliff Dwellers, toilet building at Cliff Dwellers, toilet building at Classroom on the Meadows, Private Lodge, Classroom on the Meadows, and ticket plaza) are served by a well/reservoir system connected to a network of above-ground piping. The primary well is located adjacent to the entrance drive between Grady's Discovery Den and the Private Lodge. The well is six inches in diameter, 200 feet deep, dug in 2006 with a capacity of 35 gpm. The well pump is controlled by a float switch located in the nearby 7,500-gallon pump house reservoir. This reservoir provides water by gravity head pressure to the Meadows including Classroom on the Meadows, the toilet building at Classroom on the Meadows, and the Ticket Plaza. Chemical disinfectant is added to the pump house reservoir daily. The system is tested periodically for bacteriological contamination and nitrates.

## EXISTING ELECTRICAL SYSTEMS

Duke Power provides electrical service for the park facilities. Service to the Old Rock Café, Park Office, Metal Warehouse and Maintenance Shop are provided by a service line originating in Chimney Rock Village.

Electrical service for all other park facilities is provided by an aerial three-phase service line. This above-ground service terminates at Cliff Dwellers. Service to individual facilities is provided by either above or below-ground services. Service to the Sky Lounge, elevator and lighting areas around the primary attraction is provided by way of a three-phase line, which travels up the elevator shaft.

## EXISTING TELECOMMUNICATIONS SYSTEMS

Telecommunication service for park facilities is provided on the same above-ground utility lines that provide electrical service.

## EXISTING STORMWATER DRAINAGE SYSTEMS

Stormwater drainage systems throughout the park generally focus on stormwater disposal and conveyance. There are no stormwater treatment or storage facilities within the park. Conveyance of stormwater under roadways and parking lots consists of a combination of precast concrete culverts and corrugated metal piping.